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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,176	12/28/1999	ALAN STUART FELDMAN	66180.0400/H	9679
7590 05/03/2004			EXAMINER	
HONEYWELL INC HONEYWELL PLAZA MN12 8251 P O BOX 524 MINNEAPOLIS, MN 55440			ROY, SIKHA	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

my

Office Action Summary	Application No.	Applicant(s)	
	09/473,176	FELDMAN, ALAN STUART	
	Examiner	Art Unit	
	Sikha Roy	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 68-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 68-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 22, 2003 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 68 - 71, 73 - 75 and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,220,249 to Tsukada.

Regarding claim 68 Tsukada discloses (Figs. 15, 16 and 17 column 8 lines 3-9-63, column 9 lines 17-36) a lamp comprising a substrate (glass plate) 31a having a channel (groove) 32 formed therein, the channel having first end and second end (with electrode leads 36a and 36b) and comprising plurality of adjacent channel segments 34a, 34b (34a1, 34a2, 34b2, 34b1 in Fig. 17) configured in series with one another, each channel segment having at least first end and a second end and configured to emit light in response to an activation voltage applied between its first and second ends,

a plurality of activation electrodes (36a, 36b, 36c, 36d, 36e in Fig. 17) coupled to the channel and adapted to couple to a lamp activation power supply 38 wherein each channel segment shares its first end or its second end with the second or first end respectively of the adjacent channel segment, at least one activation electrode is coupled to each end of the channel thus providing common electrode area.

Regarding claim 69 Tsukada discloses (column 12 lines 25-34, claim 8) that all of the individual discharge channel segments lit with same voltage having equal activation voltage potential between each of the channel segment first and second ends.

Regarding to claim 70 Tsukada discloses in Fig. 15 a plurality of sidewalls formed on the substrate 31b and a lid (glass plate) 31a coupled to the sidewalls thus forming an enclosure with interior surface.

Regarding claim 71 Tsukada discloses (column 5 lines 39-42 Fig. 13) a reflective layer 28 applied to interior surface of the enclosure.

Regarding claim 73 Tsukada discloses a fluorescent film 24 disposed within the enclosure.

Regarding claim 74 Tsukada discloses (column 5 lines 65,66) the channel is serpentine in shape.

Referring to claim 75 Tsukada discloses (column 5 line 20) the lamp is a flat type fluorescent lamp.

Claim 79 essentially recites the method of starting and operating a lamp with same limitations of the lamp recited in claims 68 and 69 and hence is rejected for the same reason.

Claims 68, 70, 71, 77 and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,343,116 to Winsor('116).

Regarding claim 68 Winsor discloses (Figs. 4 and 6 column 5 lines 63-68, column 6 lines 27-33) a lamp comprising a substrate 12 having a channel formed therein, the channel having at least a first end and a second end and comprising a plurality of adjacent channel segments configured in series with one another, each channel segment having a first end and a second end and configured to emit light in response to an activation voltage applied between its first end and second end, plurality of activation electrodes 38a, 38b, 38c, 40a, 40b and 40c coupled to the channel and adapted to couple to a lamp activation power supply 70. Winsor further discloses (clearly evident from Fig. 6) each channel segment shares its first or second end with the second or first end respectively of the adjacent channel segment forming a common activation electrode area (electrode area 40a is common to two channel segments covering by its width) and one activation electrode 40a coupled to the common electrode area.

Regarding claim 70 Winsor discloses (column 2 lines 48-54 Fig. 2) plurality of sidewalls coupled to the substrate 24 and a lid (top plate) 22 coupled to the sidewalls forming an enclosure having interior surface.

Regarding claim 71 Winsor discloses (column 3 lines 39-41) a reflective material applied to the bottom plate to increase the light emitted from the top plate.

Regarding claims 77 and 78 Winsor discloses in Fig. 6 channel comprising n (n=7) conjoined channel segments configured along m (m=8) parallel paths where n is

greater than two and m is greater than one. In Fig. 6 two parallel paths share one common end and one activation electrode is coupled to the common end.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 72 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,343,116 as applied to claims 68 and 71 above, and further in view of U.S. Patent 6,218,776 to Cull et al.

Regarding claim 72 Winsor does not exemplify the reflective material comprising aluminum and ceramic.

Cull in analogous art of flat fluorescent lamp disclose (column 6 lines 55,56, claim 20) reflective material selected from a group consisting of aluminum and ceramics. It is well known in the art to use aluminum and ceramics as reflecting material for their good reflecting property.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to specify the reflective material of the enclosure of Winsor from a group consisting of aluminum and ceramic as taught by Cull et al. for their reflecting property which would enhance the brightness of the lamp.

Regarding claim 76 Winsor ('116) does not disclose the portion of the channel formed by the divider walls having asymmetric cross section.

Cull et al. in analogous art of flat fluorescent lamp disclose (column 4 lines 9-20) in Figs. 3D-E the diffuse channels having cross section that is asymmetrical and a channel wall formed such that the top portion tapers inward toward the diffuse channel cavity. It is further noted that this type of design yields a concentrated cone of light corresponding to a desired range of viewable angles.

Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to modify the serpentine channels of Winsor's lamp by the one having asymmetrical cross section as taught by Cull et al. for yielding a concentrated cone of light to a desired range of viewing angles.

Response to Arguments

Applicant's arguments filed December 22, 2003 have been fully considered but they are not persuasive.

Regarding applicant's argument that Winsor fails to disclose at least one activation electrode coupled to each end of the channel and one activation electrode coupled to each common electrode area the examiner respectfully disagrees. Winsor discloses one activation electrode (30 or 32) at each end of the channel. Furthermore Winsor discloses (Figs. 4 and 6 column 6 lines 1-25) the electrodes 40a, 38a, 40b, 38b

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coated with emissive coatings provide a large surface area to evenly spread the electric discharge arc. These electrodes coupled to activation voltage (power supplies 42 and 46) and common between two adjacent channel segments are indeed activation electrodes creating plasma between the first and second end of adjacent channel segments and provide the common electrode area.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.

Sikha Roy
Patent Examiner
Art Unit 2879



VIP PATEL
PRIMARY EXAMINER